

## In Situ Resources Utilization Capability Roadmap

<i>Time</i>	<i>Name</i>	<i>Affiliation</i>	<i>Paper</i>
9:30	J. Sanders	NASA JSC	ISRU NASA Overview
10:00	F. Bauer	NASA HQ	APIO Public Input Process
10:15	Crabb	Orbital Technologies Corp.	Basalt Fiber-a base ISRU raw material for structures, therm
10:30	Schubert	Space Manufacture, LLC	Architecture for a Self-Sustaining Lunar Base Providing Spa
10:45	Lindsey	Futron Corp.	In-Situ Resource Utilization: Lunar Regolith Shielding for Lu
11:00	Shea	Lunar Development	Landing pads, Life Support Volatiles and Rocket Fuel from M
11:15	Morris	Swales	Planetary Thermal Architecture
11:30	Morrow	Orbital Technologies Corp.	Methods to Generate and Utilize In Situ Inedible Biomass
	Schissler	Penn State University	Intelligent Excavation Using Multi-Drillbots to Search, Discov
11:45	Lunch Break		
13:00	Joshi	Physical Sciences Inc	Multi-use Solar Energy System for Lunar ISRU and Biomass
13:15	Jones	XCOR Aerospace	Throttling Liquid Rocket Engine with Fully Lunar-Derivable I
13:30	Dissly	Ball Aerospace	The Need for Lunar Robotic In-Situ Resource Prospecting
13:45	Reedman	MD Robotics	In Space Refueling and Resupply
14:00	Paik	JPL/Univ of Maryland	Exploring the Moon using an Orbiting Superconducting Grav
14:15	Cardiff	NASA GSFC/ USAF	Production of Oxygen on the Moon by Vacuum Pyrolysis
14:30	Shappirio	NASA GSFC	Rapid determination of In Situ Resources
14:45	Moseley	NASA GSFC	Far Infrared Detectors for Exploration and Resource Identif
15:00	Gilland	Ohio Aerospace Institute	In Situ Resources for Advanced Propulsion Concepts
15:15	Trombka	NASAGSFC	Design of a Pulsed Neutron Gamma-Ray Spectrometer for M
16:00			

thermal insulation, micrometeoroid protection and other In-Situ Cord/Cable, Fabric and Composite Solid Products  
transmit Solar Power to Earth  
Lunar Station Protection  
Mining

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store, Extract, and Convey Planetary Minerals from Underground to Surface Locations

Hydrogen Production  
Propellant

Thermometer

Communication

Mars Rover Missions